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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Nevenka Dimitrova

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EXAMINER

LUONG, ALAN H

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,697	Applicant(s) DIMITROVA ET AL.	
	Examiner ALAN LUONG	Art Unit 2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 7-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 7-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Art unit is changed into 2427

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 03, 2009, has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0044225 A1 published by **Rakib** (hereinafter Rakib), in view of US 2002/0002707 A1) published by **Ekel** et al.(hereinafter Ekel); further in view of US Patent 6,490,320 to **Vetro** et al.(hereinafter Vetro) and further in view of US Patent 7,181,757 to **Kim** et al. (hereinafter Kim)

Regarding to claim 1. Figure 1 of Rakib illustrates “**A residential gateway system**” .

The system comprises: **means** (18, 20, 28, 42) **for receiving broadcast video signals from a variety of sources** [15]” (Rakib, Fig. 1, ¶0030, ¶0035); and “**means** (14) **for displaying video signals** [34]” (Rakib, Figs. 1, 2, ¶0038) for displaying video signals. **A residential gateway** (10) **coupled to said receiving means** (18, 20, 28, 42) **for selectively displaying video signals on said display means** [14] (Rakib, Fig. 1, ¶0039); as shown in Figure 2, Rakib discloses “**a handheld controller** (50)” [70]” **having a display screen** (52)” [92] that is “**coupled to said residential gateway** (10) **via a network channel** (48) [72A/B] **for communicating with and controlling said residential gateway** (10) (Rakib, ¶0048, ¶0052) wherein said residential gateway comprises: “**means** (44, 66) **for storing attributes of said handheld controller** (50) **and of said network channel** (48)” [118] as necessary for matching the bandwidth of the data path during rateshaping activities (Rakib, ¶0092).

Rakib also discloses “**transcoding means** (68) **for transcoding video signals, in response to said stored attributes, for transmission on said network channel** (48)” [72 A/B], **to said handheld controller** (50) [70] whereupon, “**said transcoded video signals are capable of being handled by said network channel** (48) **and of being displayed on the display screen** (52) **of said handheld controller** (50) **without further processing in said handheld controller** (50)” given that the video signal has already been processed (see Rakib, ¶0053, ¶0056, ¶0076, ¶0092, and ¶0124). Further, Rakib discloses the residential gateway system

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further comprises typical peripherals in a customer premises that the gateway couples to the headend circuitry that service them are: digital VCR 38, home computer 40, network computer 44, digital security video camera 46 and digital telephone or videophone 48; (**Rakib, Fig. 1, ¶0039**), DVD player 324 ; Fig. 9 as **means (22, 30, 32, 41)**; it was well known in the art at the time of the invention to understand these devices functions ***for storing video signals and for playing back stored video signals*** .

Rakib also discloses the transcoders 161 as the ***transcoding means (68)*** is capable of ***transcoding stored video signals*** (see Rakib, Fig. 5, ¶0092).

Furthermore, Fig. 9 of Rakib illustrates "***the handheld controller***" (i.e. PDA [399]) comprises "***a memory [408] "having stored therein profile information concerning a plurality of users of said handheld controller*** (i.e. the programs drive menu on display 402, example: program 416 for controlling host 400 to display menu; program 422 controls host 400 to convert video program to the suitable format for display on the display device 402; program 424 allow user to control any devices which coupled with Gateway through LAN connection; etc...), ***said profile information including guidelines of which transcoding process is desired by the selected user***"(see Rakib, Fig. 9, ¶0142-¶0152),

Finally, Rakib also discloses a personal digital assistant (PDA) having wireless capabilities (***handheld controller (50)***) data can be exchanged with the transceiver of a home gateway or some set top decoder with a transceiver on a LAN coupled to the gateway. PCMCIA or springboard modular wireless transceiver or wireless LAN NIC (hereafter just PC card) 380 provides the connectivity to the gateway either directly or

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through a wireless or other LAN coupled to the gateway to send and receive commands and data determine **the bandwidth capabilities of the network channel (48) and the display screen (52); (Rakib, Fig. 9, ¶0142 and ¶0143)**, including the resolution and refresh rate of the display screen (52 and a transcoders 161 (***the transcoding means (68)) transcodes the video signals to conform with at least the bandwidth of the display screen (52) ; (Rakib, Fig. 5, ¶0092).***

However, Rakib is unclear with “the handheld controller (50) comprises the screen size, processing power, and battery life”.

In an analogous art directed toward a similar problem namely improving the results from display screen of handheld remote control; Ekel discloses “the handheld controller (50) “comprises “screen size, processing power, and battery life”; **(Ekel, Fig. 5, ¶0032)**

Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the remote display screen in Rakib so as to depend on the screen size, processing power, battery life as taught by Ekel; in order to presents a portion of the content on the controller display. The "portion" of the content may mean a reduction in size, a selection of particular components, or a simplified representation of the full content if the content includes video, animation, or other complex subject matter; **see Ekel; ¶0010).**

However, Rakib is silent with respect to “the transcoding stored video signals by performing a video content analysis; wherein said video content analysis analyzes the stored video content, and said transcoding means transcodes the video signal by,

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alternatively, providing a series of still images and a text summarization of the stored video signals, and providing a series of relevant video clips and audio clips, both based on the content analysis of the stored video signal;

In an analogous art directed toward a similar problem namely improving the results from performing a video content analysis. *Fig. 6 of Vetro illustrates a transcoder [600] as said transcoding means includes one or more object-based transcoders 800 operated by a Transcoding Control Unit (TCU) [610] includes shape, texture, temporal, and spatial analyzers [611-614] according to control information 604, where the TCU is responsible for performing a video content analysis wherein said video content analysis analyzes the stored video content of texture and shape data, as well as temporal and spatial resolution, (The main objective of **texture analysis** is choosing Q' which satisfy the rate constraint while minimizing distortion, the purpose of **temporal analysis** is skipping frames is to reduce the buffer occupancy level so that buffer overflow, and ultimately the loss of packets, is prevented. In a **shape analysis**; the shape data are coded on a per block basis by the so-called context-based arithmetic encoding algorithm, this context is used to access a probability look-up table, and such that the sequence of probabilities within a block drives arithmetic encoder and **Spatial analysis** for reducing the rate is to reduce the resolution by sub-sampling. In version 2 of the MPEG-4 standard, a tool called Dynamic Resolution Conversion (DRC) has been adopted into the MPEG-4 standard. With this tool it is be possible to reduce the resolution, i.e., spatial quality, of one object, while maintaining the resolution of other more important or spatially active objects).* (Vetro, col. 12 line 5 to col. 15 line 48).

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Example: the analysis of all anchorperson shots will yield similar motion activity parameters, which infer relatively low motion. Given this data, we can classify such content into the second class (importance of spatial quality>temporal quality).

Furthermore, we can expect that all police chases, and shots of the like, be classified into the first class (importance of temporal quality>spatial quality). Finally, depending on the background activity of the reporter on the scene, this type of shot can be classified in any one of the three available classes. For the purpose of the example, this shot is classified into the third class by transcoding entire shot to a single frame (Vetro, col. 19 lines 28- 46) and said transcoding means [600] transcodes the video signal by, alternatively, providing a series of still images and a text summarization of the stored video signals (as "a discrete-summary transcoder") (Vetro, col. 7 lines 1-15) (and another methods that are used for real-time transcoding can also be used to generate summaries and variations of a particular video);(col. 22 line 63 to col. 23 line 6) (i.e. a better quality shot can be deliver by summarizing the content with the discrete-summary transcoder, so that the transcoders achieve the optimal rate-quality functions of FIG. 5, in order to achieve a reasonable level of perceptual quality.) (Vetro, col. 21 lines 7-56). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the transcoder for transcoding stored video signals of Rakib to include performing a video content analysis as taught by Vetro in order to define an improved transcoding system that utilizes from both syntactic and semantic information. (Vetro, col. 4 line 64 to col. 5 line 10)

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However, Rakib, Ekel and Vetro providing a series of relevant video clips and audio clips, both based on the content analysis of the stored video signal;

In an analogous art directed toward a similar problem namely improving the results from providing a series of relevant video clips and audio clips. Kim discloses “*The keyVideoClips represents the key **video clip summary** composed of key video intervals' sets. The keyEvents represents the summary composed of the video interval corresponding to either the event or the subject. The keyAudioClips represents the key **audio clip summary** composed of representative audio intervals' sets. And, the unconstraint represents the types of summary defined by users except for the summaries.* (Kim, col. 8 lines 20-32) meets the limitation of “**providing a series of relevant video clips and audio clips, both based on the content analysis of the stored video signal**”. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to include *a key video clips and audio clips as taught by Kim with the transcoder for transcoding stored video signals of Rakib and providing a series of still images and a text summarization of Vetro including the screen size, processing power, and battery life of Ekel, in order to provide access to the original video from summary segments constituting the video summary to understand more detailed information on the basis of the summary contents and overview through video summary and provide sufficient audio summary description functionalities.* (Kim, col. 2 lines 5-13)

Regarding to claim 5: The residential gateway system as claimed in claim 1 above, Rakib further discloses **the residential gateway comprises means for receiving**

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news, weather, traffic and other live information” (*EMM servers that supply weather, news, stock market data and messages associated with TV programs, electronic program guide servers, Tmail servers that display e-mail on customer TVs*)(**Rakib, ¶0105**). Moreover, Rakib further teaches a “*transcoder server*” as **transcoding means transcodes said live information in the form of a text streamer for transmission to said handheld controller**” (*Server farm 282 can also include banks of transcoder servers to adjust the data rate of various streams of data. These **transcoder servers** receive MPEG packets of video, TIVO menus or iData to be transmitted downstream to a customer and reduce the data rate according to rate shaping commands received from the system control computer to match the available bandwidth for transmissions to the customer who requested the data*). (**Rakib, ¶0105**).

3. **Claims 7, 10-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib, Vetro et al., Ekel et al. and Kim; in view of (US 2004/0250273 A1) published by Swix et al.(hereinafter Swix)

Regarding to claim 7: The residential gateway system as claimed in claim 5, Rakib explicitly discloses (handheld controller [399] further comprises “a memory (60) for storing profile information concerning a plurality of users of said handheld controller (50), said profile information including guidelines of which transcoding process is desired by the selected user”, (**Rakib Figs. 9, ¶0142-¶0145**)

However, Rakib is deficient autonomously providing a priority setting in said user profile.

In an analogous art directed toward a similar problem namely improving the results from a priority setting in said user profile. Swix teaches “a priority setting in said user profile”;

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(Swix, ¶¶0064-¶0066, ¶0072). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include the transcoded text streamer based on a priority setting in said user profile as taught by Swix in *the transcoder for transcoding stored video signals* of Rakib and *providing a series of still images and a text summarization* of Vetro including *the screen size, processing power, and battery life* of Ekel, for the combination of entertainment video and data streams on the same transport is also optimized for the purpose of providing enhanced multimedia services based on the priority of user profile.

Regarding to claim 10: Rakib, Vetro et al., Ekel et al. and Kim teach all limitations of the residential gateway system in claim 1, Fig. 8 of Rakib illustrates an advanced Home Gateway [300] includes DVD player [324] as **a video signal recording and playback means (Rakib, ¶0126)** represents the video signal on display [323] and Fig. 9 of Rakib illustrates a PDA remote control [399] as **the handheld controller having means for** [414] as Menu display where user can **selectively delete selected portions of a selected one of the programs thereby forming an edited program (¶0068), said edited program being subsequently displayed on said displaying means [402].**

Rakib states that the handheld controller can exchange data with the gateway on a LAN coupled with Gateway and includes the program which converts the data to a suitable format for display on PDA. **(Rakib, ¶0142).** However, Rakib fails to teach the residential gateway system provides a table of contents for each programs represented by video signals stored by the video signal recording and playback means.

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In an analogous art directed toward a similar problem namely improving the results from a table of contents for each programs; Fig. 5 of Swix illustrates [500] as **a table of contents for each programs [501] represented by video signals** stored in Gateway [MODD] ; (**Swix; ¶0065-¶0068**). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the residential gateway system of Rakib, Vetro et al. and Ekel et al. to include a data table as taught by Swix to allow consumers will only have access to enhanced services--such as video/audio on demand, interactive TV, Web surfing, e-mail, electronic shopping and recording/storing/playback of broadcast programs--when they are using their enhanced digital STB (**¶0006**) for exchange the media with the consumer's handheld device.

Regarding to claim 11: The residential gateway system as claimed in claim 10, Ekel et al. also teaches **"the table of contents is stored with the video signals of each of the programs"**; (see Ekel, Figs. 1 and 4, **¶0004, ¶0031, ¶0046**)

Regarding to claim 12: The residential gateway system as claimed in claim 10, Ekel et al. also teaches **"the table of contents is obtained from the Internet by the residential gateway system"** (see Ekel, Fig. 2, **¶0007, ¶0022, ¶0024**) .

4. **Claims 8, 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib, Vetro et al., Ekel et al. and Kim; in view of US 2002/0088723 A1 published by Ma et al.

Regarding to claim 8: Rakib, Vetro et al., Ekel et al. and Kim teach all limitation of the residential gateway system in claim 1, Kim also teaches **"the profile information**

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includes user priorities for topics, time of day, location, available time for watching previews and full-length videos”; (Kim, col. 6 line 51 to col. 7 line 10).

Neither Rakib, Vetro et al., Ekel et al. nor Kim teaches “using the attributes of the video signals, in a weighting scheme along with said user priorities wherein said user priorities are highest weighted”.

In an analogous art directed toward a similar problem namely improving the results from “using the attributes of the video signals, in a weighting scheme along with said user priorities wherein said user priorities are highest weighted”. Ma teaches “in a weighting scheme along with the user priorities are highest weighted”; **(Ma, Fig. 2, ¶0059-¶0061).**

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a weighting scheme as taught by Ma et al. in *the transcoder for transcoding stored video signals* of Rakib and *providing a series of still images and a text summarization* of Vetro including *the screen size, processing power, and battery life* of Ekel along with *the user priorities of Kim*, to provide the systems and methods address these and other limitations of conventional arrangements and techniques to analyze and summarize video data.

Regarding to claim 9: Rakib, Vetro et al., Ekel et al. and Kim teach all limitation of the residential gateway system in claim 1, wherein the residential gateway system provides includes storage and playback means, but fails to teach the audio-visual summaries including images representing scenes in the video signals;

In an analogous art directed toward a similar problem namely improving the results from analysis scenes in the video signals; Ma teaches **the audio-visual summaries**

including images representing scenes in the video signals; (Ma, ¶0109). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include the audio-visual summaries as taught by Ma et al. in *the transcoder for transcoding stored video signals* of Rakib and *providing a series of still images and a text summarization* of Vetro including *the screen size, processing power, and battery life* of Ekel along with *the user priorities of Kim*, to give reasonable results combining language understanding techniques with visual feature analysis; **(Ma, ¶0008).**

5. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib, Ekel et al., Vetro et al. , Kim et al. and Swix et al.; in view of US 2003/0182661 A1 published by Ellis et al.

Regarding to claim 13: Rakib, Ekel et al., Vetro et al., Kim et al. and Swix et al. discloses all limitations of the residential gateway system in claim 10, However, Rakib, Ekel et al., Vetro et al., Kim et al. and Swix et al. are silent with respect to “lock-out means for locking out selected programs or portions of programs from being viewed on displaying means”

Fig. 7 of Ellis shows “**lock-out means**”[70] **for locking out selected programs or portions of programs from being viewed on displaying means**”[27] (Ellis; Fig. 4, 7, 30, 39, ¶0154-¶0162, ¶0168, ¶0176 and ¶0189). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the residential gateway system comprises the handheld control of Rakib include lock-out means as taught by Ellis et al. in order to provide password control for access to

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individual programs, as well as channels, using a protected interactive flexible and uncomplicated on-screen interface. (**¶0029**)

Response to Arguments

6. Applicant's arguments with respect to claims 1, 5, 7-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LUONG whose telephone number is (571)270-5091. The examiner can normally be reached on Mon.-Thurs., 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/ALAN LUONG/

Examiner, Art Unit 2427

April 29, 2009

/Scott Beliveau/

Supervisory Patent Examiner, Art Unit 2427